**IT Applications Unit 3, AOS 1, Online Communities**

**Complete the following, from pgs, 18-28:**

**NETWORK HARDWARE AND SOFTWARE**

**Network Operating Systems (Windows, vista, etc)**

1. **Describe the role of the network operating system.**

The Role of the network operating system (NOS) is to control traffic in the network. It tells devices how to communicate with each other. It usually has two components such as Server Software and client software.

1. **What are the typical tasks of network server software?**Typical tasks of network server software are tasks along the lines of; controlling file access, managing print queues, keeping track of users though IDS and passwords, authenticating access to network servers and keeping a log of the usage and problems in the network. So their jobs mainly revolve around organization of the network and its servers.
2. **What is the role of network client software?**Client software is installed on each workstation and establishes a connection using NIC between the workstation and other devices on the network.
3. **List the 3 providers of network operating systems.**

Microsoft, Apple and Novell.

**Web client software**

1. **List the typical client software**

**Software for setting up websites**

* The HTTP protocol- the standard for communication on the internet.
* Web server software (Microsoft internet information services (IIS))
  1. **Describe the role of http protocol.**

The Http protocol is used for transmitting and receiving information on the internet. All servers and devices on the internet must follow the request and response procedure established in the http protocol.

* 1. **What is the role of web server software?**The role of the web server software is to provide information and content using the http protocol. This is usually in the form of html documents, images, etc.

1. **What is the role of a proxy server?**

A proxy server acts as a go-between for a computer that is requesting resources from another server. They may be accessing a web page, file, connection or another resource.

1. **What are the advantages of using a proxy server?**

Advantages of using a proxy server are that: it keeps machines anonymous, it speeds up resources (using caching (storing)) and can scan transmitted content for malicious software.

* 1. **Describe the role of the following software:**

1. **SMTP**

Simple Mail Transfer Protocol is a internet standard for sending emails

1. **POP3**

Post Office Protocol 3 is an application layer internet standard protocol that is used to store messages.

1. **FTP**

File Transfer Protocol is a standard network protocol used to copy a file from one host to another over a TCP-based network, such as the Internet.

1. **Web software applications**Web software applications are programs designed for use on a website and include blogging software forums and wikis.

**Cross-platform web software**

1. **What is meant by a Cross-platform application? List ect.**

Cross-platform applications use an execution engine and complier with libraries so that it runs identically on all machines.

**What is adobe flash?**Adobe flash is a software tool that enables website developers to combine interactive content with text, 3D graphics, audio and video.

**Network Hardware**

**Describe the characteristics and role of the following network hardware devices:**

* 1. **Network Interface Card:**

A network interface card is used to link a computer or resource to a network.

* 1. **Wireless Access Point:**WAP connects devices to a wireless network.
  2. **Switches:**

Store the address of devices and are able to check packages to determine their destination.

* 1. **Routers:**Sit between the device and the outside world. It is a junction between two networks. Routers can be programmed to only allow specific traffic.
  2. **Modems:**Short for modulator-demodulator, modems transfer a device to transmit data over telephone or cable lines. A digital modem transmits data through a digital connection. They use the phone line but change it so the phone line can understand it digitally. A cable modem uses the cable TV network to transmit data rather than the phone line.

**For each of the following modem types, in a table indicate the following:**

|  |  |
| --- | --- |
| **MODEM** | **DOWNLOAD SPEED** |
| **Dial up modem** | 56 kbs |
| **ADSL** | 2mb |
| **ADSL 2 +** | 20mb |
| **Broadband Cable** | 1GB |

1. **How does a digital modem differ from a dial-up modem?**

Dial-up uses the analogue phone line. The digital uses the phone line but transforms the data into digital.